

A STUDY TO DETERMINE THE OPTIMAL MEANS OF EXPEDITING THE PROCESSING OF INPATIENT TREATMENT RECORDS AT THE WALTER REED ARMY MEDICAL CENTER WASHINGTON, D.C.

A Problem-Solving Project
Submitted to the Faculty of
Baylor University
In Partial Fulfillment of the
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of

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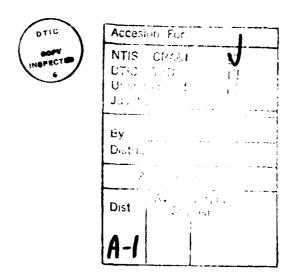
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CHAPTER I

Introduction

GENERAL

The 1980 Health Services Command Annual General Inspection of Walter Reed Army Medical Center (WRAMC) pointed out that the state of delinquent Inpatient Treatment Records (ITR's) was unsatisfactory and required new management initiatives to reach acceptable completion levels. Currently, there are 1100 delinquent clinical records at this institution. Preparation of clinical records is accomplished through the unit management structure, rather than in the Directorate of Patient Administration which traditionally performs this function.

The preparation of the clinical record is accomplished by the Directorate of Medical Activities Administration and forwarded to Patient Administration in completed form. Conceptually, this method keeps the record with the clinical specialty area through discharge of the patient. An immediate consequence of this approach creates significant fragmentation of the medical records staff responsible for assembly and typing. Historically, WRAMC is experiencing approximately 350 inpatient discharges per week.² These discharges represent new clinical records which must be completed resulting in a production demand on a system which is operating at its limits.

PROBLEM STATEMENT

The problem was to determine the optimal means of expediting the processing of Inpatient Treatment Records (ITR's) at the Walter Reed Army Medical Center. This problem in its present form is systemic and has become commonplace due to the magnitude of the patient care operation at this hospital.

MOTIVATION FOR STUDY

The motivation for this study was based on the academic requirements that the analyst perform a problem solving project in a real-work environment. Additionally, the hospital's high ITR delinquency rates provided a special opportunity to apply problem solving techniques to a meaningful situation. A historical review of the delinquency rates³ is depicted as follows:

| Month | Number of Records |
|----------------|-------------------|
| April 1980 | 2114 |
| May 1980 | 1901 |
| June 1980 | 1835 |
| July 1980 | 2098 |
| August 1980 | 1679 |
| September 1980 | 1978 |
| October 1980 | 1836 |
| November 1980 | 1464 |
| December 1980 | 1541 |
| January 1981 | 1650 |
| February 1981 | 1211 |
| March 1981 | 1135 |

X

The emphasis in developing a rapid system for Inpatient Treatment Records processing ideally tailored for WRAMC was the immediate requirement. Consistent with this realization is the fact that well maintained medical records are a positive reflection on the quality of care rendered at the facility. The importance of the records can not be overly emphasized, since they frequently represent the "bottom-line" in a court of law as to the documented levels of care provided. The recognition of certain inherent limitations and establishing definite assumptions were critical in the problem resolution. Furthermore, the availability of material and personnel dictated to what degree system change could be implemented. Consequently, the critical parameters which limit resolution of this problem included: (I) maintaining an improved level of medical care; and (2) keeping the structural configuration of unit administration intact.

REVIEW OF LITERATURE

The prevalence of research and application of management initiatives in clinical records maintenance eminates from medical care rendered in the civilian sector. The analyst's review of previous impirical findings accomplished in military settings did not address the ramifications of the unit administration concept and its effects on the processing of clinical records. Consequently, the WRAMC systems environment forced the evolution of this study into uncharted areas which involved drawing inferences and applying them for proper fit.

A recent study accomplished at the University of Texas Medical Branch, Galveston, addressed the issues commonly found affecting the completion of medical records in a teaching hospital. The survey was targeted at 123 hospitals and experienced approximately a 50% response rate. The two most striking findings evolving from the survey showed:

- 1. Virtually all respondents reported a policy in dealing with (completing) medical records that is oriented strongly toward negative or punitive measures (that is, monetary fines, withholding checks, and so on).
- 2. They believe that physicians lack understanding regarding the costs or consequences of incomplete records and give record completion a low priority among their duties.⁵

The importance of the medical record must be continually stressed since its functions in the practice of medicine are to:

- 1. Document the course of the patient's illness and medical treatment as an inpatient or an outpatient.
- 2. Communicate between the physician and other professionals contributing to patient care.
- 3. Provide continuity of patient care on subsequent admission of the patient.
- 4. Review, study, and evaluate patient care by hospital or medical staff committees.
- 5. Provide data for third parties concerned with the patient other physicians and hospitals, insurance companies or prepayment agencies, compensation carriers, attorneys, government agencies.

- 6. Provide data to assist in protecting the legal interest of the patient, the hospital, and the medical staff.
- 7. Provide clinical data for research, study, and education.6
- 8. Provide documentation of Quality of Care rendered.

The problems involved in maintaining acceptable levels for record completion rates is multi-faceted and involves both the physician and the administrative support. Dr. Don Schneider conducted a study at Ellis Hospital, Schnenectady, New York, to evaluate means to effectively improve record completion rates. His observations lead to the conclusions that production standards must be established to accurately analyze staffing needs or to judge performance of each employee. Furthermore, in large facilities such as WRAMC, medical records employees often come under less supervisory scrutiny than those in smaller or centralized activities; thus formal standards become a necessity for the managerial control in record processing. The creation and filling of the position of Area Records Manager at WRAMC has been a positive move toward unifying the record processing procedures.

The Geisinger Medical Center⁸, Danville, Pennsylvania, improved its methods of records completion rates by increased training of its personnel. The hospital established and conducted a medical transcriptionist training program. Additionally, the transcriptionists work in a central word processing area and transcribe material from modern dictation equipment coupled with power typing machines. This approach served to streamline the Geisinger's records processing operation.

The evolution of the medical record has increased the importance of the information which it contains. The period beginning with approximately 1920 marks the start of medical records processing on the order as it is known today (see Appendix A). This concern for a systematized method of record preparation follows the thrust of establishing rules and standards for hospital care and the doctor's reliance on the hospital as a principal place of care for his patients. The thrust for standardization was outlined as follows:

The (standardization) does not mean, as a casual consideration of the term might suggest, that every hospital must become standard in the sense that it must abandon its own ideas and ideals of service, and carry on its work according to any routine stereotyped fashion... Standardization touches only what might be called the great common denominators of service... which therefore can be applied by every hospital, no matter what type it might be, no matter along what lines it is operating, no matter what its organization... The basis of standardized service is to know what the hospital is doing, and to record its work in such a way as to enable an appraisement to be made of it... Records, therefore, are a prime essential in any program of hospital standardization... Case records are the visible evidence of what the hospital is accomplishing... Not to maintain case records properly is like running a factory without a record of the product. 10

Jack E. Horsley, writing in Medical Economics 11, points out some rather successful means of eliminating delinquent medical records. These suggestions included providing the best equipment for the physicians to utilize for dictation and the most modern typing machines for the records personnel. Further, his system is reinforced by suspending privileges or imposing fines on physicians charged with delinquent records. The objective of discipline is to impress the physician with the seriousness of delinquent records and to motivate him to improve.

The authority for disciplinary action to be taken against the individual physician is usually delegated by the governing body to the executive committee of the medical staff. Disciplinary action for delinquent records may take several forms, such as:

- 1. Temporary suspension of admission privileges.
- 2. Temporary suspension of surgical privileges.
- 3. Delay in promotion.
- 4. Delay in expansion of privileges.
- 5. Reduction of privileges.
- 6. Downgrading in staff appointment.
- 7. Requirement of mandatory consultation in specific categories not required of other staff members.
- 8. Requirement of surgical or obstetrical assistance at operation or delivery above general staff requirements. 12

Measures to improve physician efforts in eliminating delinquent clinical records at WRAMC range from department chief counselling or admonishment to denial of leave and temporary duty for training (see Appendix B).

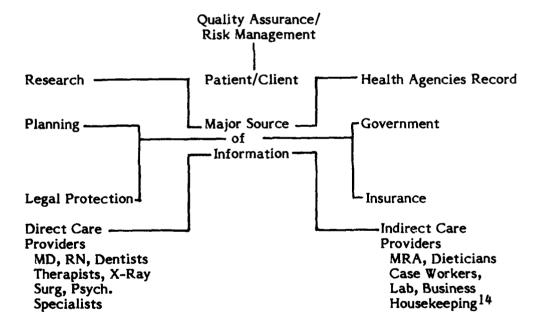
In the medical records processing survey conducted by J. Spence Stephens, et al¹³, virtually all hospital respondents reported a policy in dealing with medical records that is oriented strongly toward negative or punitive measures (that is, monetary fines, withholding checks, and so on). The study further pointed out that no hospital that was successful in handling delinquent records was strongly

oriented toward positive measures. Moreover, the stronger the punitive policies (department fines, budget cuts, individual fines, checks withheld and so on) were found to be more successful than the weaker punitive policies.

In essence, the literature demonstrates that the most consistent means of reducing the number of delinquent records capitalizes on:

- 1. Providing adequate training to the medical records personnel.
- 2. Making available modern dictation and typing equipment.
- 3. Establishing sanctions to motivate the physician to maintain his clinical records in a current status.

Employing these methods should insure the proper gathering and flow of medical information which constitutes the hub of health care as demonstrated below:



PROBLEM - SOLVING METHODOLOGY

The analyst interviewed staff members in each of the operational elements, obtained references to regulatory guidelines, evaluated control documents, and researched appropriate external statistical references for comparison. The Army Regulations and the Joint Commission on Accreditation of Hospitals' standards dictate time lengths for processing of clinical records (Appendix C).

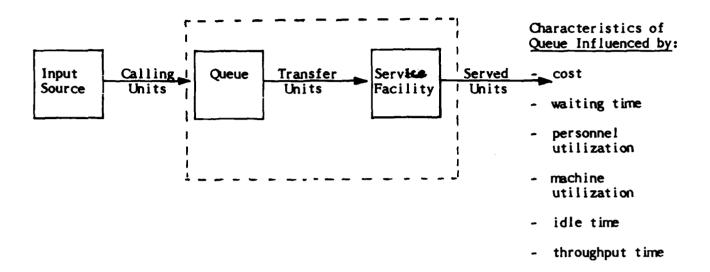
The analyst initially assessed the problem situation by reviewing the medical records completion delinquency rates and monitored the inpatient discharge rates. Observations were conducted in the record processing workplace to gain an understanding of the procedures required to ready a record for physician signature. An interview guide was utilized to facilitate the information processing procedure (Appendix D). Information gathered demonstrated that congestion points existed in the system which occurred in the form of:

- 1. Delays in doctors dictating clinical records.
- 2. Delays in support personnel transcribing and preparing clinical records.
- 3. Delays in obtaining physician review and signature on completed clinical records.

An analysis of the above instances describes congestion in the system and lends itself to queuing application. Translation of these factors into a que simulation required applying the "PITS" concepts espoused by LTC Thomas A. Janke, Ph. D., in his text, How to Manage Practically Anything Systematically. Understanding the clinical record processing system meant applying queue discipline:

t

QUELE SYSTEM



Descriptive Elements:

- 1. Input source Physicians discharging patients and dictating charts.
- 2. Queue Assembled clinical records awaiting transcription.
- 3. Service facility Inhouse and outhouse transcription of charts. Assembling record for physician review and signature.

Further investigation of the problem illustrated that the queue had multiple service channels. The inherent nature of the work showed that it could be dispatched to workers (Medical Record Technician/Typists) based on the volume to achieve uniformity of productivity.

Treating the multi-channel aspect as a varying parameter of the que 16 lends itself to solution by application of exponential mathematics. Here the number of clinical records found in the system can be expressed as λ or λ and the service channels as c. R. T. Eddison, et al 17 , points out that the basic transition equations to demonstrate the multiple channel queue are:

$$P(0, t+dt) = P(0,t)(1-\lambda dt) + P(1,t)udt...$$
(for $|< n \le c$)
 $P(n-1,t+dt) = P(n-1,t)(1-\lambda dt-cudt)...$ (for $n>c$)

However, the analyst resorted to a simplistic queueing approach which is shown at Appendix E.

The problem of records processing lent itself well to application of the Program Evaluation and Review Technique (PERT)18 since the process has identifiable components leading to completion of a prescribed objective. The organizational uniqueness of WRAMC prevented the application of an all inclusive PERT schematic, however, the model developed is representative of the major clinical record processing procedures. Yet, utilizing this technique illustrated that the following events are critical to the processing and completion of a clinical record: Description of critical events (PERT schematic Appendix F) –

- 1. Dictation of chart narratives by physician.
- 2. Filing and assembling chart by Medical Record Technician.
- 3. Medical Record Technician/Typist verifies contents of chart and transcribes.
 - a. Transcription contracted out during peak workload periods.
- 4. Completed record is provided to originating physician for review and signature.

ı

a. Records containing errors are returned to Medical Record Technician/Typist for correction.

5. Completed record turned over to PAD for abstracting and filing.

The above activities require intense management and prove vital in the completion of clinical records. Several of these tasks are ongoing concurrently and a break in the task sequencing can delay the record completion and in turn increase the delinquency rate.

Consequently, the methods of research application selected by the analyst were intended to identify those aspects of the present system which have caused the current state of dysfunction. Furthermore, these operations research techniques can prove valuable in isolating those features essential in generating a qualitatively acceptable alternative which would enhance the processing of clinical records.

FOOTNOTES

- WRAMC Clinical Record Control Delinquency Roster, PCN IAFR-078, March 1981.
- Entrance Interview with Major Clarence White, Directorate of Patient Administration, WRAMC, Washington, D.C., 22 October 1980.
- ³WRAMC Clinical Record Control Delinquency Roster, PCN IAFR-078, April 1980 March 1981.
- ⁴Bernard Benjamin, ed., <u>Medical Records</u> (London: William Heineman Medical Books Ltd., 1977), p. 59.
- ⁵J. Spence Stephens, et al, "Improving Medical Record Completion at a University Hospital," <u>Medical Records News</u>, 51 (June 1980), 27.
- ⁶Edna K. Huffman, <u>Medical Record Management</u>, 6th ed. (Berwyn, II.: Physicians' Record Company, 1972), p. 123.
- ⁷Linda Appleton Schneider and Bon Schneider, 'Development of a Medical Record Management Control Study, 'Medical Record News, 51 (June 1980), 18.
- ⁸David J. Duncan, 'Geisinger Hospital/Clinic Costs in Services, 'Hospital Topics,' 57 (November/December 1979), 18-19.
- ⁹Gretchen F. Mumphy and Kathleen A. Waters, <u>Medical Records in Health Information</u>, (Germantown, MD.: Aspen Systems Corp., 1979), p. 62.
 - Huffman, p. 21.
- 11 Jack E. Horseley, 'Not a Single Hospital Chart Overdue', Medical Economics, XLVIII (April 12, 1971), 226.
 - ¹²Huffman, p. 158.
 - 133 Stephens, et al, p. 26.

14 Murphy and Waters, p. 34.

Thomas A. Janke, <u>How to Manage Practically Anything Systematically</u>, GR 14-260-100, (Fort Sam Houston, TX: Academy of Health Sciences, 1979), pp. 116-125.

16R. T. Eddison, K. Pennyswick and B. H. P. Rivett, <u>Operational</u> <u>Research in Management</u>, (New York: John Wiley & Sons, Inc., 1962), pp. 64-66.

¹⁷Ibid, p. 65.

18 Operations Research for the Health Care Administrator, CR 14-260-51, (Fort Sam Houston, TX.: Academy of Health Sciences, 1970), pp. 27-41.

CHAPTER II

Discussion

DESCRIPTION OF THE EXISTING SYSTEM

Walter Reed Army Medical Center (WRAMC) is a Department of the Army acute care medical/surgical health care facility located in Washington, D.C. The hospital is currently operating at 910 beds in an ultra-modern physical plant occupied during December 1978. The facility has the capability to handle 1280 impatients and serves as a principal medical referral center for DA and DOD with active programs in medical teaching and clinical research.

The medical center functions through a directorate-type administrative staff (Appendix G). The medical staff has approximately 365 physicians providing patient care. WRAMC represents a unique management topology since it employs the unit administration/management concept to support its clinical activities.

This hospital is a health care delivery system with departments, directorates and services constituting its subsystems. Yet, it is a subsystem of the larger ecosystem of the DOD health care delivery apparatus. The very nature of a hospital creates differentiation and integration with resulting negative entrophy in the accomplishment of its goals and objectives. The doctor-patient encounter coupled with the generation of medical information/records, medical audits, and medical staff interactions assures dynamic homeostatis with anticipated positive outcomes in health status (Appendix H).

The current system employed in the preparation of clinical records is taxed in handling the impatient volume experienced at WRAMC. Clinical records are prepared in a decentralized mode with a varied wintage of office equipment which is not representative of the current state-of-the-art in word/data processing. The existing system does not have the adequate suprastructure to respond rapidly in record preparation. All impatient treatment floors of the hospital, excluding floor seven, have multiple clinical records processing sites. Consequently, this system of records preparation forces the fragmenting of staffing resources and necessitates additional supervisory requirements.

Chart completion responsibilities:

| Record completion sites | Ward designations | Service/Specialty |
|-------------------------|--|---|
| 4th floor - 5 locations | 43, 44 43, 44 46 47, 48 48 | Obstetrics Neo-natal Thoracic surgery Nephrology Organ transplant MICU |
| 5th floor - 6 locations | 51 52 53, 54, 55 56, 57 58, 68 | Pediatrics* Neurology Psychiatry and Neurology Orthropedics Neurosurgery |
| 6th floor - 4 locations | 64, 65, 68, 57 6 4 65 | General Surgery Urology Ophthalmology Plastic surgery Peripheral vascular surgery |
| | 66 | Otolarynogology Dental |
| | 67 | Gynecology |

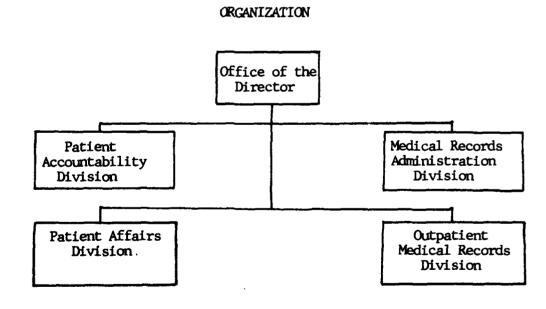
| Record completion sites | Ward designations | Service/Specialty |
|-------------------------|-------------------|---|
| 7th floor - 1 location | 75 | General medicine Hematology/Oncology Pulmonary Allergy Gastroenterology |

*A Pediatrics case requiring other medical specialty support will have its clinical record transferred to the new specialty service for completion.

ORGANIZATION OF THE DIRECTORATE OF PATIENT ADMINISTRATION (PAD)

The Directorate of Patient Administration is structured to provide patient management/administration services to support the health care delivery mission of WRAMC. ² Its structural configuration is depicted as follows:

DIRECTORATE OF PATIENT ADMINISTRATION



The Patient Administration Directorate (PAD) does not perform the full range of Inpatient Treatment Records preparation functions traditional to other AMEDD patient administration activities. Draft WRAMC Regulation 40-73 outline the PAD's functions as they pertain to ITR's preparation and completion:

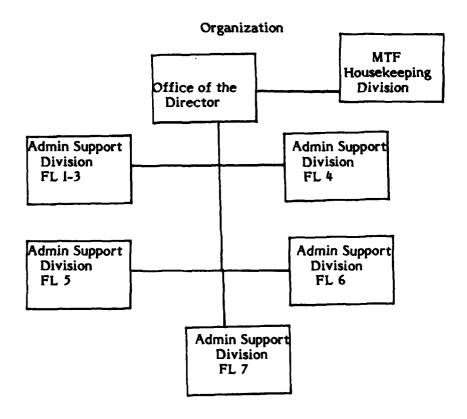
The Director of Patient Administration will provide for the review of the Inpatient Treatment Record for completeness and accuracy, safeguarding and storage after the patient's final disposition. Insure that the Inpatient Treatment Record meets the criteria set forth in Army Regulation 40-46 and Joint Commission on Accreditation of Hospital Standards, and will code all diagnoses and operation in accordance with the International Classification of Diseases, 9th Edition.³

Consequently, the PAD is not charged with the responsibility to assemble and transcribe the ITR; but to verity its completeness, safekeeping, storage and coding.

ORGANIZATION OF THE DIRECTORATE OF MEDICAL ACTIVITIES ADMINISTRATION (MAAD)

The MAAD provides support services and medical administration to all health care and ancillary activities at WRAMC.⁴ It operates on the principle of unit management/administration mode (Appendix I). These tasks are accomplished through an organizational structure in the following manner:

DIRECTORATE OF MEDICAL ACTIVITIES ADMINISTRATION



The support functions performed by MAAD include the preparation of the ITR as outlined in Draft WRAMC Regulation 40-73:

The Director of Medical Activities Administration (MAAD) will provide guidelines for the planning, organizing, directing and controlling the management of the Inpatient Treatment Record, prior to final disposition.⁵

The MAAD provides the necessary interface to assure the record and its supporting documents are maintained on the ward in an adequate manner.

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PROBLEMS IN THE PRESENT SYSTEM

The present Inpatient Treatment Record processing system for Walter Reed lacks the capacity to respond effectively to the enormous inpatient load characteristic of this medical treatment facility. Additionally, the coordinating apparatus does not employ the necessary flexibility to bring all the ITR preparation activities into a unified whole. There are systemic problems which hamper prompt completion of records. These problems range from physicians placing a low priority on record completion to less than optimal equipment for use by record processing personnel.

A continuing problem exists in maintaining the full staffing of Medical Record Technicians (MRT) and Medical Record Technician/Typists (MRT/T). Excellent efforts have been initiated by MAAD to maintain sufficient staffing through personal recruiting at local medical records personnel schools. One argument which is frequently voiced concerns the low compensation provided to the MRT/T's under the Office of Personnel Management classification schedule when compared to similar hospitals in the area. This situation is being studied by the MAAD and may develop positive results. Job descriptions for WRAMC's MRT and MRT/T positions are at Appendix J. General Schedule entry ratings for the MRT and MRT/T are at the GS-4 level.

Inservice training programs in clinical records processing for the MRT and MRT/T were found to be sporadic. Furthermore, initial orientation was lacking since new personnel were often thrust into vacancies due to staffing shortages. This partice has produced less than satisfactory results on several occasions. The importance of a well trained MRT or MRT/T is crucial to the smooth functioning of the clinical records processing system. Additionally, no hospital-wide program

exists to instruct physicians and medical students prior to their assignment to a treatment area concerning the correct procedures required in processing airevacuations, patient discharging, or filling out Inpatient Treatment Record Cover Sheet (ITRCS). Attention to these administrative matters by the clinical complement would aid significantly in processing the records satisfactorily.

The equipment complement of the ITR processing system constitutes a special source of dysfunction. Dictation is accomplished through portable dictaphones on magnetic tape cassettes. This procedure lacks flexibility since the physician must accomplish his dictation in a prescribed location where the dictaphones are securely maintained. The disadvantages of this system are such that the physician cannot capitalize on nontreatment periods in his work schedule to accomplish dictation which may be at a place other than the dictation room or even WRAMC.

The absence of a word processing system at WRAMC represents another major obstacle in the improvement of the ITR processing system. Currently, the typing of ITR's is accomplished on a varied assortment of power typewriters. An interim measure such as obtaining heavy duty power typewriters with self-correcting features would ease the situation while word processing equipment is awaiting procurement. A recent study accomplished at St. Joseph Hospital, Milwaukee (a 567 bed acute care, short term, teaching hospital) following installation of an electronic word processing system cited the following reasons for their decision:

l. Ease of operation.

- 2. Availability of standalone and shared-logic systems to meet different response time needs.
- Ease of upgrading and expanding disk capacity to accommodate more CRT work stations and printers.
- 4. Recover the cost of the word processing equipment through elimination of the use of outside transcription services and assuming new work or reducing staff in less than one and a half years.
- 5. Reduce document turnaround time (time between dictation and final typed copy ready for physician review and signature) and reduce/control our backlog of transcription work.
- 6. Improve document quality (no strikeovers, erasures or use of correction fluid or tape, especially for carbon copies).

WRAMC utilizes external contract services to accomplish overflow transcriptions. Numerous complaints were voiced by physicians and records personnel that the contract services' turnaround time was deplorable. Investigation of this particular aspect concerning delays was directed to the Director, Patient Administration (contracting agent). The query revealed that contract dictation work was held until an adequate quantity was available to send out. Further, the analyst attempted to determine what criteria was utilized to determine when dictation would be contracted out. No defined criteria could be obtained. Observations indicated that contracting out was predicated on whether the MRT/T was backlogged and this condition could vary with the proficiency of the MRT/T and the clinical service workload.

The decentralization of record processing at WRAMC forces fragmenting the staff creating a situation which cannot effectively take advantage of the economics of scale. WRAMC has sixteen separate clinical record transcription and preparation sites. Having separate MRT/T sites decreases the flexibility in MAAD to distribute transcription workload and forces a greater reliance on contract services. The consolidation of staffing resources is recognized as an essential ingredient to an effective record processing system. Bernard Benjamin reiterates this belief when he states:

... the most economical system as far as staffing is concerned, is the centralization of medical secretarial services perferrably with centralized mechanical dictation⁷

The problems manifested in the WRAMC clinical record processing system are not insurmountable, but their persistence poses a debilitating effect on patient care, teaching and clinical research. A summarization of the problems indicate that they include:

- l. Difficulty in maintaining appropriate staffing levels of MRT's and MRT/T's.
- No Medical Treatment Facility-wide orientation of physicians and medical students in the proper procedures of dictation and preparation of documents for the clinical record.
- 3. Sporadic inservice training provided to the MRT's and MRT/T's in clinical record preparation.

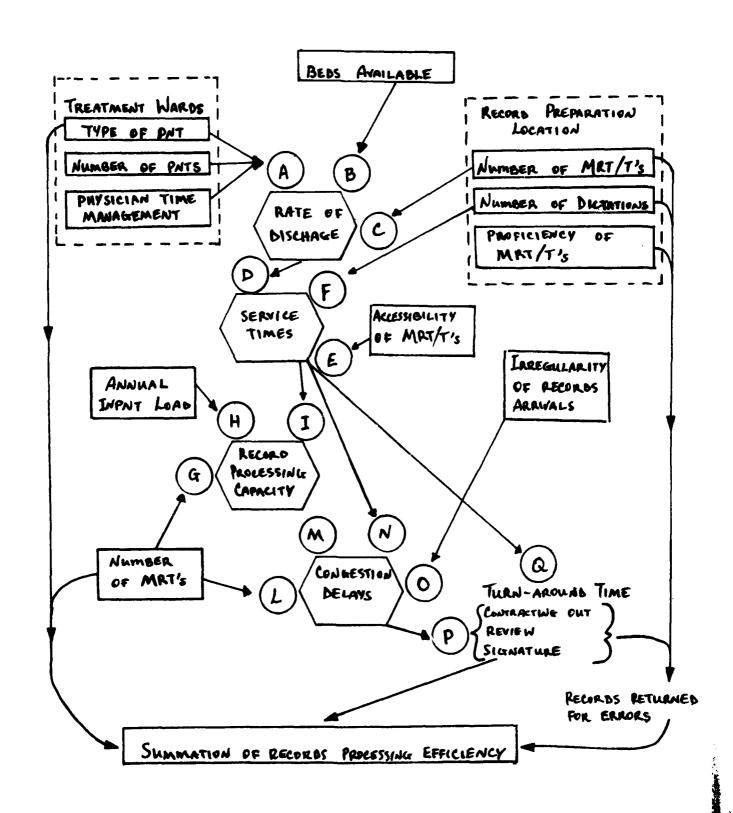
- 4. Absence of a centralized dictation system and modernized word processing operation.
- Absence of a coordinated program with interdepartmental support to attack the ITR delinquency problem.
- 6. Decentralization of MRT/T operations resulting in sixteen ITR preparation sites.

The above six areas constitute an overview of the dysfunctional aspects of the WRAMC ITR processing system.

THE SYSTEM MODIFICATIONS FOR IMPROVEMENT

The systematic approach of identifying dysfunctional areas in the ITR processing system should be encouraged and documented through the interaction of the MAAD, PAD and the clinical departments. Consequently, in those functional areas where system variations are detected the effective assessment of the problem will dictate the appropriate structural modification. This can include personnel/logistical support or even continuing medical education (CME) for a medical professional to modify and affect change. This process of ITR preparation must be followed by re-examination to ascertain if the deviation from the norm criteria has been extinguished. The following schematic provides a systems overview to the process:

SYSTEMS MODEL OF ITR'S PROCESSING (FLOW CHART OF CAUSE AND EFFECT IN ITR'S PROCESSING DELAYS)



Rates of discharge depend on

- (A) type of patients
- (B) beds available
- (C) MRT/T staffing level

Service times depend on

- (D) rate of discharge
- (E) accessibility of MRT/T's (i.e., time taken to transport charts and assemble missing clinical documents)
- (F) number of dictations

Record processing capacity depend on

- (G) number of MRT's
- (H) annual inpatient load
- (I) service time

Congestion delays depend on

- (L) number of MRT's
- (M) record processing capacity
- (N) mean service time
- (0) irregularity of records arrivals

Turn-around times are the sum of

- (P) delays for contracting out transcription, records review and signature, equipment down-time, and staff shortages
- (0) service times

SOURCE: Patrick Rivett, An Introduction to Operations Research (New York: Basic Books, Inc., 1968), pp. 66-67. Analyst modified author's model to describe the dynamics of the WRAMC clinical record processing system.

ORITERIA AND TECHNIQUES FOR EVALUATION

The effectiveness of any system is evidenced by obtaining the prescribed results or outcomes. A measure of the number of record completions is the degree of physician compliance and the level of responsiveness evidenced by the processing system. The issue of evaluating the effectiveness of the system can be eclectic as demonstrated in the following model:

Approaches, Techniques and Criteria Used in the Measurement and Control of the Quality of ${\tt Care}^8$

Approaches

| General | <u>Specific</u> | Techniques | <u>Criteria</u> |
|------------------------------|---|------------|-----------------|
| Annual General Inspection | Hospital Medical Staff Review Committee | Structure | Explicit |
| | Administrative Departments | | |
| Accreditation | Patient Care | Process | Implicit |
| | Research Studies | | |
| Certification | Medical Audits | Outcome | |
| | Patient Satis- faction | | |
| | Malpractice Litigation | | |

The above matrix demonstrates that evaluating the quality of care depends on how effectively records are processed and maintained. Therefore, these approaches are the various methods utilized to categorize the system and the techniques are the ways that care is measured within the various approaches.

Consequently, WRAMC can assess the status of its ITR processing efforts by surveying the following areas prior to implementation of new procedures:

- 1. Commitment of the medical staff to the value of properly documented ITR's.
- 2. Degree of MRT and MRT/T satisfaction to present operating system.
- 3. Degree of interdepartmental cooperation in solving record delinquency problem.
- 4. Adverse effects of incomplete ITR's on teaching and clinical research.
- 5. Level of medical malpractice litigation.

This assessment will provide a referenced baseline for future appraisals of the ITR processing system after it is fully implemented. Further, these areas of concern can be assigned numerical values and standardized to fit pre-established limits. A value which exceeds the norm would signal immediate attention and initiate intervention by the command group, the medical staff, and/or the administrative staff.

FOOTNOTES

¹Daniel Katz and Robert Kahn, <u>The Social Psychology of Organizations</u>, 2d ed., (New York: John Wiley & Sons, Inc., 1978), pp. 63-68.

²"Organization and Function Manual", <u>WRAMC Regulation 10-1</u>, (Washington: Walter Reed Army Medical Center, 8 September 1980), p. 5-98.

³"Inpatient Treatment Records", WRAMC Regulation 40-73 (Draft), (Washington: Walter Reed Army Medical Center, 19 November 1980), para 3f.

WRAMC Regulation 10-1, p. 6-34.

WRAMC Regulation 40-73 (Draft), para 3e.

Dennis Casey, Ken Kahl and Jim Vlazny, "Word Processing Eliminates Use of Outside Transcription Service," Medical Record News, 51 (October 1980) pp. 75-76.

⁷Bernard Benjamin, ed., <u>Medical Records</u> (London: William Heineman Medical Books Ltd., 1977), p. 57.

⁸Steven Jonas, <u>Health Care Delivery In the United States</u>, (New York: Springer Publishing Co., 1977), p. 377.

CHAPTER III

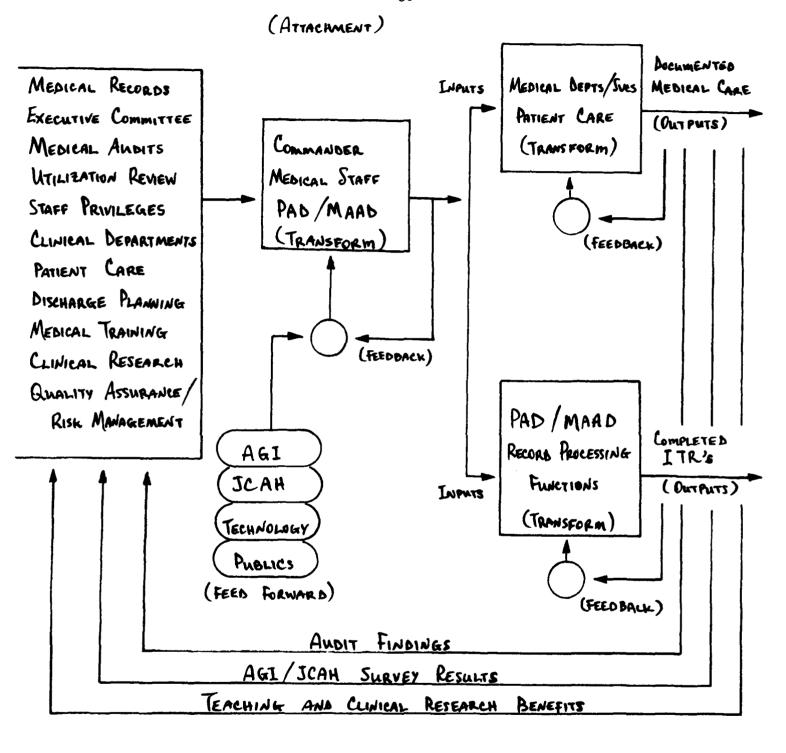
SYSTEMS DESIGN AND IMPREMENTATION

The optimum approach to an effective means to expedite the processing of clinical records must include the following considerations:

- 1. A comprehensive integration of the medical and administrative elements involved in record processing.
- 2. A command indorsed plan with periodic reassessment.
- 3. An improvement in the level of clinical record completion rates.

Consequently, the analyst interprets the environment as requiring an integration of adequate staffing and sufficient logistical support. The existing system at WRAMC is functioning at less than the desired level. However, the optimum approach to a clinical record processing operation for WRAMC can be viewed in a systems format (see attached). This approach fully integrates all elements involved in the record processing operation along with command initiatives which ultimately effect good medical care. A detailed listing of management initiatives which complement the following model is at Appendix K.

The implementation of a revised clinical records processing system will require additional staffing and funding for equipment. The organizational climate is receptive to a change for improvement in the system. Cooperative input must be obtained from all staff elements prior to and during implementation of the revised system. This team approach will insure shared interest and solidification of its acceptance.



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CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The Walter Reed Army Medical Center has experienced a systemic problem of excessive delinquency rates in the completion of ITR's. Notable improvements have occurred during the past twelve months. However, this progress has been a result of sheer management momentum vis-a-vis systems improvement. Furthermore, the addition to the staff of an Area Records Manager is proving decisive in bringing order to the system and fixing accountability to a fragmented operation.

Improvement in the process of ITR preparation and completion depends essentially on two ingredients: (I) state-of-the-art equipment additions and (2) people-to-people communicating. The magnitude of the WRAMC operation demands the latest in technology represented by a centralized dictation system and modern word processing equipment. Implementation of the necessary equipment changes will result in improved production outputs.

A final essential element toward improvement of record completion is through people-to-people communicating by team building. It is difficult to expect efficient work from the record processing personnel unless relevant departments and members of the medical staff cooperate. When the relations between the various departments and the (MAAD) is one of mutual understanding, efficiency is much more likely to follow. Efficiency is really dependent upon unity of purpose obtained by personal contact and the frequent discussion of each others problems.

The problems of records delinquency at WRAMC is a manageable situation which requires an aggressive commitment of administrative expertise and resources. Consequently, this commitment to an improved state of records completion must be superordinate in scope and success-oriented by embracing all involved departments of WRAMC.

Recommendations

In order that Walter Reed Army Medical Center establish optimal means of expediting the processing of clinical records, it is recommended that:

- I. The functions of dictation and transcription be revitalized with the installation of modern telephone access dictation equipment coupled with stateof-the-art word processing modules.
- 2. ITR transcription and preparation be centralized by floor to capitalize on personnel and equipment economies of scale.
- 3. Adequate training programs for processing ITR's be established by the Medical Administration Activities Directorate for physicians, medical students, MRT's and MRT/T's.
- 4. Goals be established and reaccessed quarterly for record delinquency reduction.

FOOTNOTES

1J. Spence Stephens, et al, "Improving Medical Record Completion at a University Hospital, Medical Records News, 51 (June 1980), 30.

X

APPENDIX A

EVOLUTION OF DATA ENTRIES ON HOSPITAL RECORDS

EVOLUTION OF DATA ENTRIES ON HOSPITAL RECORDS

Circa 1900 Primary care provided through community doctor

The patient tells doctor about illness.

The doctor may write down the information in a notebook the physician carries.

Circa 1919
Movement to hospital
standards by the
American College of
Surgeons with a
beginning focus on
medical records

The patient tells the doctor about illness in hospital setting where standards are identified.

The handwritten paper record contains:

- Identification and summary of hospitalization form
- History and physical exam
- Progress notes
- Reports of diagnostic tests such as x-rays
- Reports of surgery
- Medication records
- Nurses' notes

Circa 1920 to 1940

The patient tells the doctor about illness. Also tells interns and residents. Some information from the doctor's office records may be available before the patient's entry into the hospital.

Increasing use of dictation systems. Central dictation units established in medical record departments.

- Increased handwriting as procedures are established to secure complete, adequate medical records.
- Increased variety of medical reports appear lab tests, EKGs, EEGs, anesthesia records.

From the 1950s to early 1960s

Patients complete preadmittance questionnaires for hospital when possible. Patients tell history and facts about their illness to nurses and social service personnel. Lab and x-ray work completed prior to admission - potential for inclusion in the record. Continued focus on streamlining and organizing the patient records. Use of central dictation units highly developed. More and more reports prepared through typing units. Forms designed to standardize record organization and structure developing. Record is becoming more and more complex. Less handwriting and more transcribing. Mid to late 1960s

Establishment of Medicare, requiring specified reason for hospitalization and consents from patients for transfer of records under agreements to continue hospital care in nursing facilities. Introduction of computer.

1970s

Professional Standards Review Organization (PSRO) added to Medicare. Utilization review for length of stay and defined data items to be reported are introduced.

Computerization is well accepted for function activities of medical record departments:

- Discharge abstract systems
- Computer output
- Microfilm for master patient index

Computer printouts alter the paper record.

Establishment of methods to transfer information - summarize discharge status and nursing care plans. Increasing use of preadmission information to be part of patient record. Computer printouts appear.

Records continuing to grow in complexity. Attempts made to computerize the information. Interim records emerge. Interim is printout that serves as record form between paper records and fully computerized documents:

- Cumulative lab reports
- Computerized history
- Computer-analyzed tests -EKG, EEG

Systems established that maintain the record on computer - El Camino Hospital, Mountain View, CA. Doctors and nurses form and construct the medical record through TV-like terminals on the nursing station.

Problem-oriented records evolve. Model established at PROMIS lab. Patient record on computer keyed to problem number and title - brings more structure. Data entries are constructed from words and phrases displayed on CRT screen. Physician users can gain access to particular groups of data entries as needed.

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SOURCE: Gretbhen F. Mumphy and Kathleen A. Waters, Medical Records in Health Information, (Germantown, Md.: Aspen Systems Corp., 1979), pp 62-64.

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APPENDIX B

DEPARTMENTAL SANCTIONS FOR DELINQUENT RECORDS



| DISPOSITION For use of this form, see AR 340-15, the pre- | |
|---|--|
| REFERENCE OR OFFICE SYMBOL | SUBJECT |
| HSWP-M | Coordinating Leave with Delinquent Charts |
| Residents Dept of Medicine | FROM C, Dept of Medicine DATE 23 Jan 81 CMT1 |
| | sive number of delinquent charts, I am forced to take action number of charts delinquent for not being dictated, for |
| | ll those planning to take leave, pass or TDY will be o delinquent charts in any of the three above mentioned |
| 3. Service secretaries will following format. | l annotate in the remarks section of the DA Form 31 the |
| Delinquent | Charts: Dictation # |
| | Signature # |
| | Review # |
| Approved: | DANIEL B. KIMBALL, JR., COL, MC Chief, Department of Medicine |
| The administrative staff in | my office will fill in the number. |
| | the importance of clearing away delinquent charts. I eave and TDY approvals will eliminate the need to take a |
| | |
| | Danis Kunkell h |
| | DANIEL B. KIMBALL, JR., MD COL, MC |
| | Chief, Department of Medicine |
| | |
| | |

For use of this form, see AR 346-

REFERENCE OR OFFICE SYMB

SUBJECT

HSWP-M

Leave Policy

70 All Departmental Military Personnel FROM Chief, Dept of Med

DATE 13 Mar 81

CMT 1

- 1. Reference a. WRAMC Regulation 310-9
 - b. DF, HSWS-T, Chief of Staff, 11 Feb 81, subject; Request and Authority for Leave (DA Form 31)

38

- 2. This policy applies to all military personnel officer and enlisted assigned to Department of Medicine, A Company WRAMC, and to all categorical medicine interns in Student Company, WRAMC.
- 3. Leave forms, DA Form 31 will be initiated by the duty section so as to arrive at the company no latter than two (2) weeks prior to starting date of the leave. All leaves will be processed thru the Office of the Chief before sending to the company.
- 4. All leaves will be logged in and approved by Chief Dept of Medicine. For all physicians, leaves will not be approved if he or she has any delinquent charts for dictation, signature or review.
- 5. Emergency leave as always will be processed immediately and will be hand carried to the company by duty section personnel after approval from the Chief.
- 6. Individuals who decide for some reason to cancel their approved leave must contact Leave Control, 576-3511, no later than the day leave was scheduled to commence.
- 7. All personnel must sign-in and out by calling Leave Control, 576-3511, 24 hours a day.
- Request that all services use the attached format for preparation of DA Form 31.
- This policy will be enforced. Effective 27 March 81, no leaves will be approved which do not meet the 2 weeks advance notice.

Daniel & Kuntalla DANIEL B. KIMBALL, JR., MD

COL. MC

Chief, Department of Medicine

APPENDIX C

MEDICAL RECORD PROCESSING STANDARDS (WRAMC REG 40-73/JCAH)

C

6. TIME FRAME FOR COMPLETION OF THE INPATIENT TREATMENT RECORDS

- a. Inpatient Treatment Records with all disgnoses and procedures recorded on the ITRCS, discharge summary overprint or discharge note will be delivered (unit administrator) to Patient Administration (ITR Management) within seven (7) days after the patient has been discharged; ten (10) days in death cases. ITR's will be turned in routinely, under the cover of the DA Form 2496 (overprint) "Clinical Chart Turn-in Sheet".
- b. Patient Administration (Coding and Analysis) will extract all needed information for reports to USAHSC and will return the records (under cover of the overprint DA Form 2496) to the appropriate Medical Records Technician, Typist (MRT/T) for completion of narrative summary/operation report, final review and processing within seven (7) days.
- c. After the ITR has been completed and reviewed, the record will be returned to Patient Administration (ITR Management) for permanent filing. The Inpatient Treatment Record will be completed and in the permanent files not later than 30 days post disposition. Inpatient Treatment Records will be considered delinquent if the record has not been turned in to Patient Administration after 30 days post disposition.
- d. Patient Administration (ITR Management) will twice monthly
 prepare a ITR Control Delinquency Roster. Copies of the delinquent roster
 will be furnished the Commander, the Deputy Commander, Chiefs of
 appropriate departments/services and Director Medical Activities

Administration. Each department, service, or directorate will establish and enforce time frames to insure timely completion of the ITR to include the following time frames:

| 1–7 | days Post Discharge | ITR to PAD from MRT/T |
|-------|---------------------|--|
| 8–14 | days Post Discharge | ITR from PAD to MRT/T |
| 15–30 | days Post Discharge | ITR to PAD from MRT/T for permanent filing |

- e. Each department, service and directorate time frame established becomes a milestone which, if not met, must trigger notification to the proper official who will take action to expediate continued processing. Associate Administrators are best suited to monitor these milestones through the use of a record tracking system. When dictations (or abbreviated records) or Inpatient Treatment Record approvals and signatures are not completed within the established departmental time frames, the Associate Administrator will notify (preferrably in writing) the department/service chief or the designated representative, who will be responsible to take the necessary action required for continued processing.
- f. The completed DA Form 2496 (overprint) "Clinical Chart Turn-In Sheet" will be retained on file by the Associate Administrator for four (4) weeks as an audit trail prior to their disposition.

Maj Hayner

Accreditation Manual for Hospitals

on Accreditation of

Medical Record Services

The hospital shall maintain medical records that are documented Principle accurately and in a timely manner, that are readily accessible, and that permit prompt retrieval of information, including statistical data.

An adequate medical record shall be maintained for every individual who is evaluated or treated as an inpatient, ambulatory care patient, or emergency patient, or who receives patient services in a hospital-administered home care program.

Standard I

The purposes of the medical record are:

INTERPRETATION

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- to serve as a basis for planning patient care and for continuity in the evaluation of the patient's condition and treatment;
- · to furnish documentary evidence of the course of the patient's medical evaluation, treatment, and change in condition during the hospital stay, during an ambulatory care or emergency visit to the hospital, or while being followed in a hospital-administered home care program;
- to document communication between the responsible practitioner and any other health professional contributing to the patient's care;
- · to assist in protecting the legal interest of the patient, the hospital, and the responsible practitioner; and
- to provide data for use in continuing education and in research.

All significant clinical information pertaining to a patient shall be incorporated in the patient's medical record. The record content should be sufficiently detailed and organized to enable:

• the responsible practitioner to provide effective continuing care to the

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patient, to determine later what the patient's condition was at a specific time, and to review the diagnostic and therapeutic procedures performed and the patient's response to treatment;

 a consultant to render an opinion after an examination of the patient and a review of the medical record;

• another practitioner to assume the care of the patient at any time; and

pertinent information required for utilization review and quality assessment activities to be retrieved.

To assure that the maximum possible information about any particular patient is available to the professional staff providing care, the unit record system should be used. When it is not feasible to combine all inpatient, ambulatory care, and emergency records of an individual patient into a single unit record, a system should be established to assemble routinely all divergently located record components when any patient is admitted to the hospital or appears for a prescheduled ambulatory care appointment; or there should be a system that requires placing in the ambulatory care or combined ambulatory care/emergency record file, copies of pertinent portions of each inpatient medical record, such as the discharge resume, the operative note, and the pathology report. Pertinent medical information obtained on request from outside sources should be filed with, but not necessarily as a part of, the patient's medical record. Such information shall be available to professional staff concerned with the care and treatment of the patient.

In the interest of facilitating the use of the medical record by all those authorized to review or make entries in it, as well as facilitating the retrieval of information for administrative, statistical, and quality assessment activities, it is recommended that there be a standardized format developed for hospitalwide use. This format should be approved by the medical staff through its designated mechanism. This does not preclude any innovations for improvements in the medical record that will simplify the timely recording, review, or retrieval of information while not sacrificing the required content.

Refer also to the Quality Assurance section of this Manual.

Standard II The medical record shall contain sufficient information to identify the patient, to support the diagnosis, to justify the treatment, and to document the results accurately.

INTERPRETATION

While the format and forms in use in the medical record will vary, all medical records shall contain the following:

- Identification data; when not obtainable, the reason shall be entered in the record.
- The medical history of the patient.
- The report of a relevant physical examination.
- Diagnostic and therapeutic orders.
- Evidence of appropriate informed consent; when consent is not obtainable, the reason shall be entered in the record.
- Clinical observations, including results of therapy.
 - Reports of procedures, tests, and the results.
 - Conclusions at termination of hospitalization or evaluation/treatment.

Inpatient medical records shall include at least the following:

• Identification data. These data should include the patient's name, ad-

dress, date of birth, and next of kin. There should also be a number that identifies the patient and the patient's medical record(s).

- The medical history of the patient. This should include the chief complaint; details of the present illness; relevant past, social, and family histories; and inventory by body systems. Whenever possible, the medical history should be obtained from the patient. Opinions of the interviewer should not ordinarily be recorded in the body of the history. If a complete history has been obtained within a week prior to admission, such as in the physician staff member's office, a durable legible copy of this report may be used in the patient's hospital medical record, provided there has been no subsequent change or the changes have been recorded at the time of admission. Obstetrical records should include all prenatal information. A durable, legible original or reproduction of the office or clinic prenatal record is acceptable.
- The report of the physical examination. This report shall reflect a comprehensive current physical assessment. If a complete physical examination has been performed within a week prior to admission, such as in the physician staff member's office, a durable, legible copy of this report may be used in the patient's hospital medical record, provided there has been no change subsequent to the original examination or the changes have been recorded at the time of admission. The recorded physical examination must be authenticated by a physician member of the medical staff. When a patient is readmitted within 30 days for the same or a related problem, an interval history and physical examination reflecting any subsequent changes may be used in the medical record, provided the original information is readily available, such as in a unit record. The medical record shall document a current, thorough physical examination prior to the performance of surgery.
- Diagnostic and therapeutic orders. These orders shall include those written by medical staff members, by physicians and dentists in training status, and by other practitioners within the authority of their clinical privileges. Verbal orders of authorized practitioners shall be accepted and transcribed by qualified personnel who shall be identified by title or category in the medical staff rules and regulations. The medical staff should define any category of diagnostic or therapeutic verbal orders associated with any potential hazard to the patient, which orders shall be authenticated by the responsible practitioner within 24 hours.
- Evidence of appropriate informed consent. The medical record shall contain evidence of the patient's informed consent for any procedure or treatment for which it is appropriate. This information should include the identity of the patient, the date, the procedure or treatment to be rendered (in layman terminology when possible), the name(s) of the individual(s) who will perform the procedure or administer the treatment, the authorization for any required anesthesia, an indication that alternate means of therapy and the possibility of risks or complications have been explained to the patient, and the authorization for disposition of any tissue or body parts as indicated. The signature of the patient or other individual empowered to give consent should be witnessed. The practitioner with clinical privileges who informs the patient and obtains the consent should be identified in the medical rec-

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ord. A hospital policy and procedure, consistent with legal requirements, shall be developed to apply in certain procedures, such as sterilization or abortion, or in situations when appropriate informed consent cannot be given, such as in the case of a patient who is unconscious or an unaccompanied unemancipated minor. The need for documentation of special aspects of consent, such as for patient photographs, or for observation of a surgical procedure or for other educational purposes, shall be determined by the individual hospital and shall be consistent with any legal requirements.

- Clinical observations.
 - Progress notes made by the medical staff should give a pertinent chronological report of the patient's course in the hospital and should reflect any change in condition and the results of treatment. Pertinent progress notes should also be made by others so authorized by the medical staff, such as house staff members, individuals who have been granted clinical privileges, and specified professional personnel.
 - Each consultation report should contain a written opinion by the consultant that reflects, when appropriate, an actual examination of the patient and the patient's medical record(s).
 - Nursing notes and entries by specified professional personnel should contain pertinent, meaningful observations and information. When oxygen is prescribed for newborn infants, its use should be recorded at least as an oxygen concentration percentage and at regular defined intervals, in accordance with a written policy of the newborn nursery. When there is a postanesthesia care unit, the medical record information should include the patient's level of consciousness on entering and leaving the unit; the vital signs; and, when such are in use, the status of infusions, surgical dressings, tubes, catheters, and drains. Similar information should be recorded in the medical records of patients whose postanesthesia recovery is accomplished in other than a special care unit.
 - Opinions requiring medical judgment should be written or authenticated only by medical staff members, house staff members, and other individuals who have been granted clinical privileges.
 - Reports of procedures, tests, and the results. All diagnostic and therapeutic procedures should be recorded and authenticated in the medical record. This may also include any reports from facilities outside of the hospital, in which case the source facility shall be identified on the report.
 - The responsible practitioner should record and authenticate a preoperative diagnosis prior to surgery.
 - Operative reports should be dictated or written in the medical record immediately after surgery and should contain a description of the findings, the technical procedures used, the specimens removed, the postoperative diagnosis, and the name of the primary surgeon and any assistants. The completed operative report should be authenticated by the surgeon and filed in the medical record as soon as possible after surgery. When there is a transcription and/or filing delay, a comprehensive operative progress note should be entered in the medical record immediately after surgery in order to provide

- Reports of pathology and clinical laboratory examinations, radiology and nuclear medicine examinations or treatment, anesthesia records, and any other diagnostic or therapeutic procedures should be completed promptly and filed in the record, within 24 hours of completion if possible.
- When an organ is obtained from a live donor for transplantation purposes, the medical records of the donor and recipient should fulfill the requirements for any surgical inpatient medical record. When the donor organ is obtained from a brain-wave-death patient (where legally permissible), the medical record of the donor shall include the date and time of brain-wave death, documentation by and identification of the physician who determined the death, the method of transfer and machine maintenance of the patient for organ donation, as well as an operative report. When a cadaver organ is removed for purposes of donation, there should be an autopsy report that includes a description of the technique used to remove and prepare or preserve the donated organ. Reference should be made to pertinent state anatomical gift legislation for other medical record requirements.
- Conclusions at termination of hospitalization. These should include the provisional diagnosis or reason(s) for admission, the principal and additional or associated diagnoses, the clinical resume or final progress note, and, when appropriate, the necropsy report.
 - All relevant diagnoses established by the time of discharge, as well
 as all operative procedures performed, should be recorded, using
 acceptable disease and operative terminology that includes topography and etiology as appropriate.
 - The clinical resume should concisely recapitulate the reason for hospitalization; the significant findings; the procedures performed and treatment rendered; the condition of the patient on discharge; and any specific instructions given to the patient and/or family, as pertinent. Consideration should be given to instructions relating to physical activity, medication, diet, and follow-up care. The condition of the patient on discharge should be stated in terms that permit a specific measurable comparison with the condition on admission, avoiding the use of vague relative terminology, such as "improved." When preprinted instructions are given to the patient or family, the record should so indicate and a sample of the instruction sheet in use at the time should be on file in the medical record department. If authorized in writing by the patient or his legally qualified representative, a copy of the clinical resume should be sent to any known medical practitioner and/or medical facility responsible for the subsequent medical care of the patient.
 - A final progress note may be substituted for the resume in the case of patients with problems of a minor nature who require less than a 48-hour period of hospitalization, and in the case of normal newborn infants and uncomplicated obstetrical deliveries. The final progress note should include any instructions given to the patient and/or family.

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• In the event of death, a summation statement should be added to the record either as a final progress note or as a separate resume. This final note should indicate the reason for admission, the findings and course in the hospital, and the events leading to death.

When a necropsy is performed, provisional anatomic diagnoses should be recorded in the medical record within three days, and the complete protocol should be made part of the record within 90 days.

Reference to other medical record requirements is made in the following sections of this *Manual:* Anesthesia Services, Dietetic Services, Emergency Services, Home Care Services, Hospital-Sponsored Ambulatory Care Services, Infection Control, Medical Staff, Nuclear Medicine Services, Nursing Services, Pathology and Medical Laboratory Services, Pharmaceutical Services, Radiology Services, Rehabilitation Programs/Services, Respiratory Care Services, Social Work Services, and Special Care Units.

Standard III Medical records shall be confidential, secure, current, authenticated, legible, and complete.

INTERPRETATION

The medical record is the property of the hospital and is maintained for the benefit of the patient, the medical staff, and the hospital. It is the hospital's responsibility to safeguard both the record and its informational content against loss, defacement, and tampering, and from use by unauthorized individuals. Particular emphasis should be given to protection from damage by fire or water.

Written consent of the patient or his legally qualified representative is required for release of medical information to persons not otherwise authorized to receive this information. This shall not be construed to require written consent for use of the medical record for automated data processing of designated information; for use in activities concerned with the assessment of the quality and appropriateness of patient care; for departmental review of work performance; for official surveys for hospital compliance with accreditation, regulatory, and licensing standards; or for educational purposes and research programs. There should be a written hospital and medical staff policy that medical records may be removed from the hospital's jurisdiction and safekeeping only in accordance with a court order, subpoena, or statute. Any other restrictions on record removal shall be in addition to this basic requirement.

When certain portions of the medical record are so confidential that extraordinary means are considered necessary to preserve their privacy, such as in the treatment of some psychiatric disorders, these portions may be stored separately, provided the complete record is readily available when required for current medical care or follow-up, for review functions, or for use in quality assessment activities. The medical record should indicate that a portion has been filed elsewhere, in order to alert authorized reviewing personnel of its existence.

The quality of the medical record depends in part on the timeliness, meaningfulness, authentication, and legibility of the informational content. Entries in medical records may be made only by individuals given this right as specified in hospital and medical staff policies. All entries in the record must be dated and authenticated, and a method must be established to identify the authors of entries. Such identification may include written

signatures, initials, or computer key. When rubber stamp signatures are authorized, the individual whose signature the stamp represents shall place in the administrative offices of the hospital a signed statement to the effect that he is the only one who has the stamp and is the only one who will use it. There shall be no delegation of the use of such stamps to another individual. The parts of the medical record that are the responsibility of the medical practitioner shall be authenticated by him. For example, when specified professional personnel have been approved for such duties as taking medical histories and documenting some aspects of a physical examination, such information shall be appropriately authenticated by the responsible physician or dentist. The responsible medical staff member's own pertinent observations and significant physical findings should be added whenever necessary, or he may record his own history and physical examination of the patient. When members of the house staff and other specified professional personnel are involved in patient care, sufficient evidence should be documented in the medical record to substantiate the active participation in, and supervision of, the patient's care by the responsible attending physician or dentist. Any entries in the medical record by house staff or other specified professional personnel that require countersigning by supervisory or attending medical staff members shall be defined in the medical staff rules and regulations.

To avoid misinterpretation, symbols and abbreviations may be used in the medical record only when they have been approved by the medical staff, and when there is an explanatory legend available to those authorized to make entries in the medical record and to those who must interpret them. Each abbreviation or symbol should have only one meaning.

In the interest of accuracy, legibility, and responsibility, and when budgetary and personnel availability permit, it is recommended that medical record entries, when appropriate, be typed. Special consideration should be given to the typing of radiology and pathology reports, operative reports, and clinical resumes. When transcription and filing of these medical record reports cannot be accomplished in a timely manner, written entries pertinent to the continuity of the patient care shall be recorded.

Each clinical event, including the history and physical examination, shall be documented as soon as possible after its occurrence. Records of discharged patients shall be completed following discharge, within a reasonable period of time to be specified in the medical staff rules and regulations. A medical record shall ordinarily be considered complete when the required contents are assembled and authenticated, including any required clinical resume or final progress note; and when all final diagnoses and any complications are recorded, without use of symbols or abbreviations. Completeness implies the transcription of any dictated record content and its insertion into the medical record. Hospital policy shall define when those individuals charged with the medical record committee function shall otherwise be allowed to declare any medical record complete for purposes of filing. No medical staff member should be permitted to complete a medical record on a patient unfamiliar to him in order to retire a record that was the responsibility of another staff member who is deceased or unavailable permanently or pretractedly for other reasons. Any actions to be taken by the individual charged with medical record department responsibility in the event of medical record deficiencies or delinquency shall be defined in hospital policy and the medical staff bylaws. Substantial serious or sustained

medical record deficiencies or delinquency may be the basis for a hospital's receiving less than the maximum accreditation status.

Standard IV The medical record department shall be provided with adequate direction, staffing, and facilities to perform all required functions.

INTERPRETATION

A qualified medical record individual, responsible to the chief executive officer or his designee, should be employed on at least a part-time basis, consonant with the needs of the hospital and medical staff. This individual shall be either a registered record administrator or an accredited record technician, based upon successful completion of examination requirements of the American Medical Record Association. When highly developed organizational, management, and departmental evaluative skills are needed, a registered record administrator or a person with documented equivalent training and/or experience should be employed. When employment of a registered or accredited individual is impossible, the hospital must secure the consultative assistance of a qualified registered record administrator or accredited record technician. The consultant's primary responsibility should be to evaluate the ability and efficiency of the medical record personnel and the quality of the services being provided by the medical record department, and to assist in correcting any deficiencies found. Consultative assistance should not be used as a supplement to, or substitute for, the performance of routine duties by medical record department personnel. The consultant should visit not less than quarterly and should render written reports of the findings and recommended actions to the chief executive officer.

When a qualified registered record administrator or a qualified accredited record technician is available only on a consultative basis, individuals who are charged with medical record supervisory responsibility, but are not registered or accredited, must demonstrate their current competence. In addition to supervisory ability, competence must be demonstrated by a working knowledge of all medical record department activities, including preparation of medical records, filing and record storage, indexing, coding, statistical reporting, and security and confidentiality of records; by orientation, on-the-job training, and in-service education of medical record department personnel; by the application of automated data processing to medical records when indicated; and by the role of the medical record department in medical staff or departmental committee functions, such as those related to quality assessment activities and utilization review. Supervisory personnel who do not possess the recommended medical record credentials should participate at least in an approved preparatory correspondence course for medical record personnel leading to eligibility for accredited status.

Other personnel should be employed as needed to perform effectively the functions assigned to the medical record department, including support of the overall hospital quality assurance program.

Medical record personnel should be involved in education programs related to their activities, including orientation, on-the-job training, and regular in-service educational programs. At least supervisory and management personnel should participate in outside workshops, professional association or other organizational meetings, and pertinent correspondence courses. Educational achievement should be documented for each individual.

The medical record department should be provided with sufficient space

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and equipment to enable personnel to function in an effective manner and to maintain medical records on all patients so that they are easily accessible. Microfilmed records must be accessible to the medical staff, and equipment for reviewing them must be convenient for use by the medical staff.

The length of time that medical records are to be retained is dependent upon the need for their use in continuing patient care and for legal, research, or educational purposes. Whatever filing and storage system is used, it must provide for easy retrievability of records. Retrievability of pertinent information shall be assured by the use of an acceptable coding system for disease and operation classifications, and by the use of an indexing system to facilitate the acquisition of medical statistical information. The latest revision, or adaptation thereof, of *International Classification of Diseases*, which includes an operative procedure classification, is recommended.

Basic medical statistical information should be readily obtainable through the medical record department, the type and amount to be determined by hospital and medical staff needs. If the hospital participates in an automated medical record data processing system, the data should be available to both the hospital and medical staffs for use in quality assessment activities.

The types of data collected and systems of collection within the hospital require internal quality control measures to assess the proficiency of personnel responsible for abstracting and coding medical record information. Verification checks for accuracy, consistency, and uniformity of data recorded and coded for indexes, for statistical record systems, and for use in quality assessment activities should be a regular part of the medical record abstracting process.

The role of medical record personnel in the overall hospital quality assurance program and in committee functions shall be defined.

The degree of participation of medical record personnel in quality assessment activities and in committee functions is related to the size of, and the services provided by, the hospital; the capabilities of the departmental personnel; and the requirements of the professional staffs.

The role of medical record personnel in such activities may include:

- supervision of data gathering, with documentation of the reliability of data produced at all levels;
- training of clerical personnel engaged in locating the most useful sources of required information;
- determination of the incidence of relevant data requested for the use of committees and individuals:
- screening of medical records for compliance with established criteria and designated exceptions or equivalents, the establishment of clinical criteria being a medical staff responsibility;
- participation in the selection and design of forms used in the medical record, and in the determination of the sequence and format of the contents of the medical record;
- suggesting to the professional staffs methods of improving the primary source data that will facilitate its retrieval, analysis, tabulation, and display:
- performing ongoing informational surveillance of practice indicators or monitors for medical staff review; and

Standard V

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INTERPRETATION

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 assuring the provision of a mechanism to protect the privacy of patients and practitioners whose records are involved in quality assessment activities.

When an automated data processing system is used for comparative study purposes, personnel involved with the above medical record administrative functions shall be sufficiently knowledgeable about the system to meet the medical staff requirements.

APPENDIX D

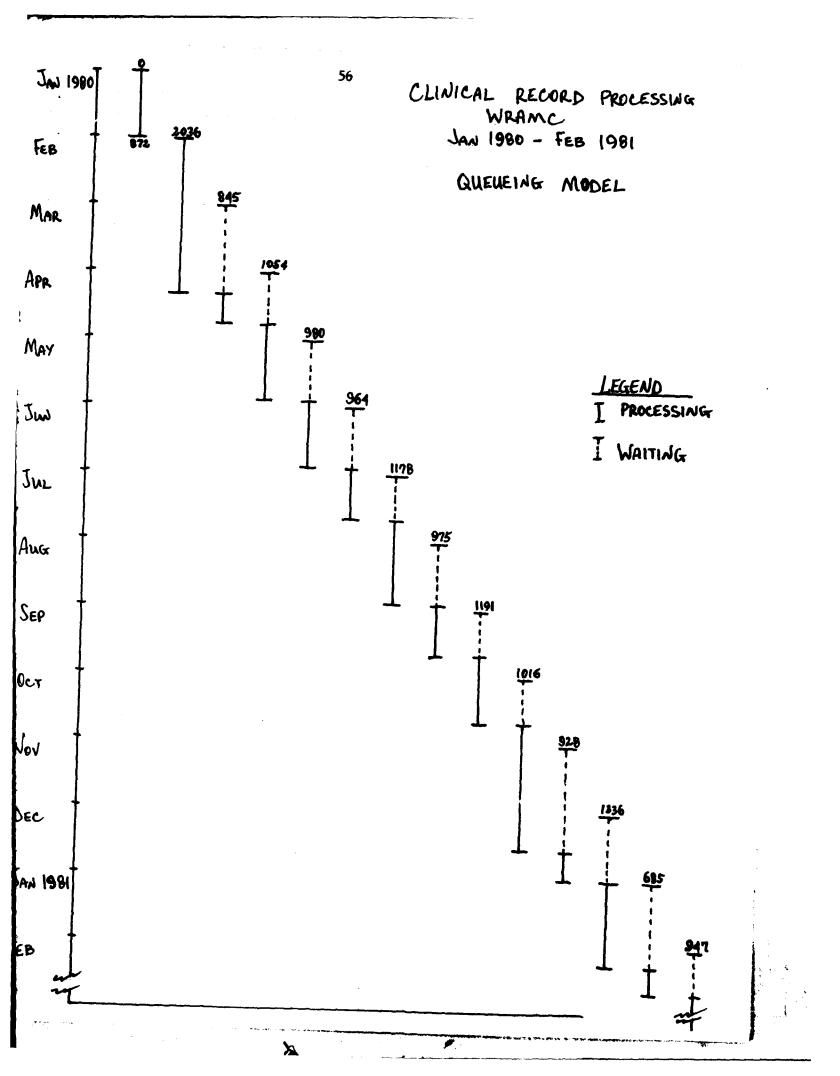
INTERVIEW GUIDE

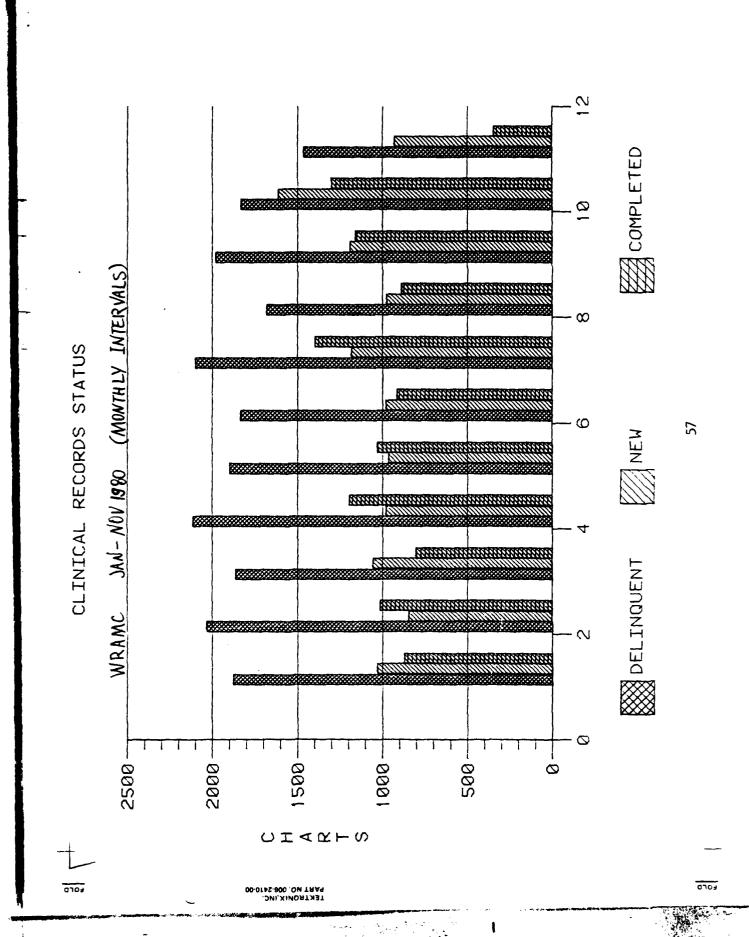
APPENDIX E

OPERATIONS RESEARCH MODELLING OF DELINQUENCY RASSES

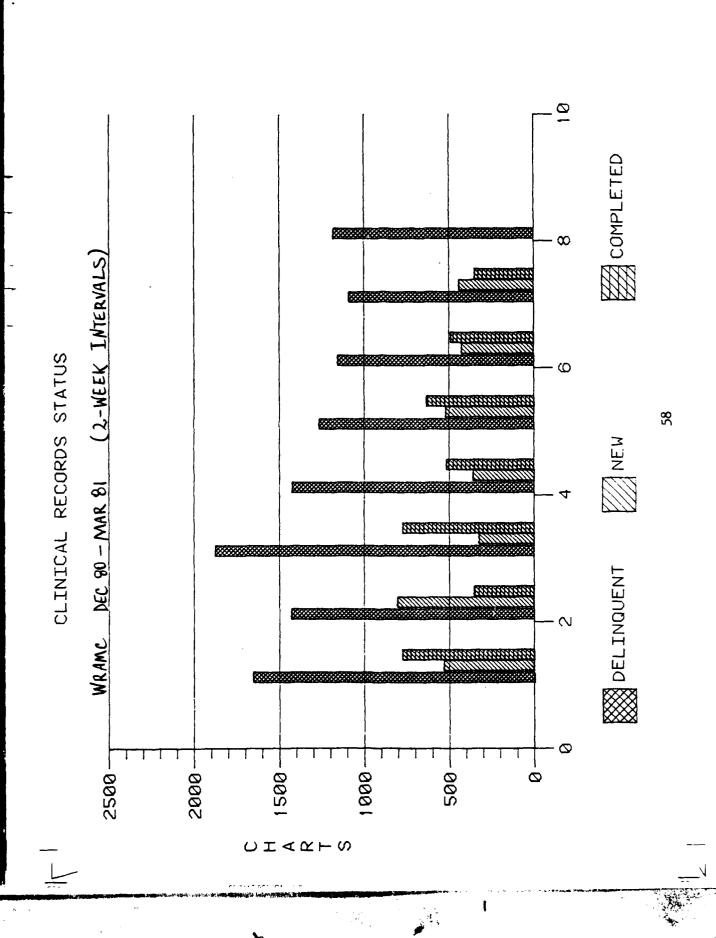
- Queueing
- Histograms







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APPENDIX F

PERFORMANCE EVALUATION REVIEW TECHNIQUE (PERT) MODEL DESCRIBING THE PRESENT CLINICAL RECORD PROCESSING SYSTEM

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EVENTS NECESSARY TO PROCESS AN 1TR

| | | Order | | 4 | |
|----------|--|---------------------|----------------------|---|----------|
| Task No. | Description | Directly Follows | Directly Precedes | Start | |
| | i | | | | rinish |
| | Physician dictates chart summaries | • | B, C, D | - | 2 |
| | MRT assembles record for transfers to MRT/T | ∢ | ш | 2 | 6 |
| ပ | MRT/T assumes accountability for chart: | ⋖ | ŢĿ, | 2 | 3 |
| | Checks records for accuracy and completeness | | | | |
| | 2. Transcribes dictation | | | | |
| | 3. Maintains an audit trail for medical records | | | | |
| | 4. Maintains system of accountability for in- patients | | | | |
| | Handles patient dispositions | | | | |
| Q | Contract out excessive transcription requirements | ď | | æ | ~ |

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| Task No. | Description | Directly Order Follows | Directly Precedes | Event No. | E |
|----------|--|------------------------|-------------------|-----------|-------|
| ъ | Process medical boards | ú | | י פור | rimsh |
| ı | | • | u 5 | 4 | 9 |
| īs, | Unit Administrator informed of problems in system | Q | M | 57 | 6 |
| ប | Record provided to specialty service for physician review and signature | ն ս | П | 9 | 7 |
| н | Record with errors return to MRT/T for correction. | íz, | ר | 9 | ∞ |
| I | Correction accomplished and physician signature obtained. | ဗ | Σ | 7 | 10 |
| רי | Record turned into PAD | Ħ | Σ | 20 | 9 |
| × | PAD accomplishes review for record completeness | н | z | σ. | 11 2 |
| n 1 | All loose documents on treatment,ward turned into PAD by MRT/T | J, L | Σ | 10 | 11 |
| Σ | PAD codes diagnoses and operations IAW the ICDA | К, М | Z | 11 | 12 |

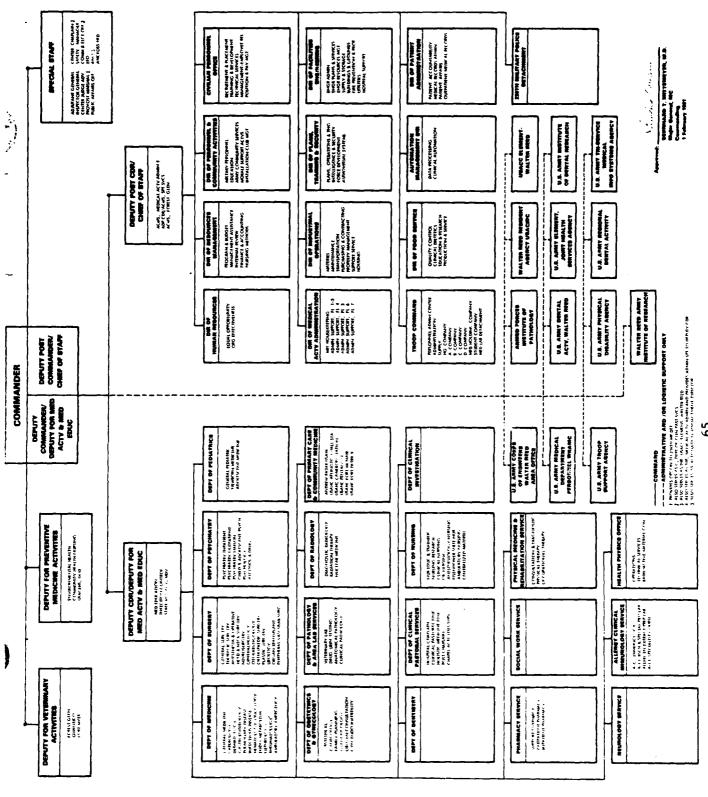
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| Order Directly | | PAD stores record as completed document | PAD issues delinquency |
|-------------------|-------------|---|------------------------|
| | Describcion | PAD stores as complet | PAD issues |

APPENDIX G

WRAMC ORGANIZATION CHART

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THE RESERVE TO SERVE TO SERVE

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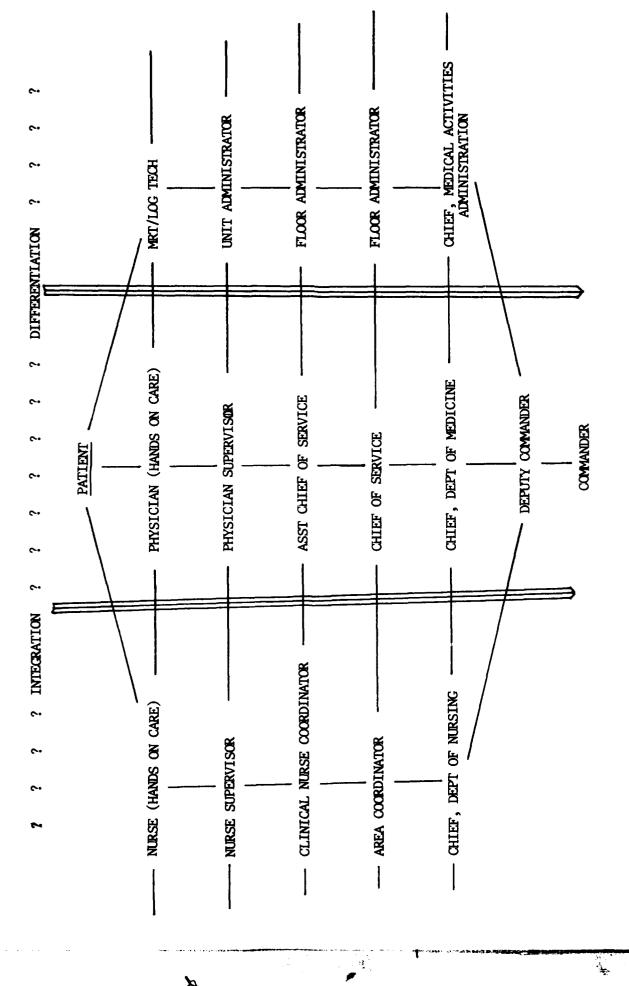
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APPENDIX H

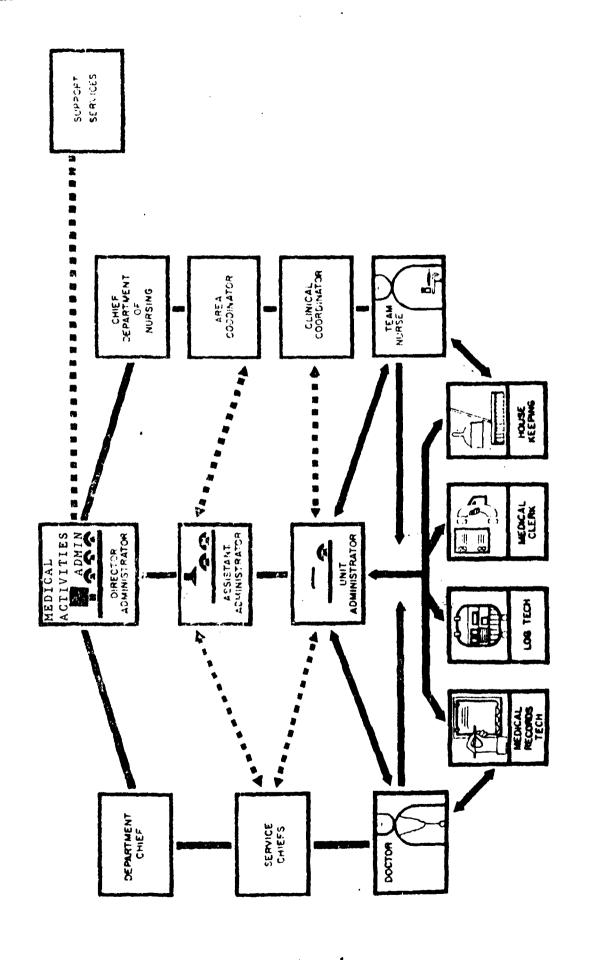
SCHEMATIC OF DIFFERENTIATION AND INTEGRATION AT WRAMC

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APPENDIX I

FUNCTIONAL SCHEMATIC OF DIRECTORATE OF MEDICAL ACTIVITIES ADMINISTRATION



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APPENDIX J

JOB DESCRIPTIONS (DRAFT) FOR THE MEDICAL RECORD TECHNICIAN (MRT) AND MEDICAL RECORD TECHNICIAN/TYPING (MRT/T)



| | | The second secon |
|------------------------------------|--|--|
| JOS FLEWENT | TASKS | ~ |
| 1. Handles all patient admissions. | 1. Preassemblas and prepares all 1. | Fi |
| | necessal | available at all times. |
| | | |
| | admission for accuracy. 2. | . All patient data chould be completely |
| | 2 Despensible for forms instanted: | error received to the forms of the land |
| | control on unit | |
| • | | |
| | | 100% of the time. |
| | 4. Coordinates with nurses and/or 4. | Ma |
| | physicians for specifics | physicians and nursed to indure accu- |
| | regarding an admission. | rate patient placement with not more |
| | | than 3 staff complaints received in a 6 month period. |
| 2. Transcribes all physicians' | 1. Transcribes all physicians' 1. | . All routing physician arders should |
| orders. | | |
| | | written. |
| | 2. | Ş |
| | | |
| | | Z |
| | • | |
| | • | returned to the ? tor |
| | | of doctors' orders lacause of errors. |
| 3. Handles all patient | 1. Maintains documentation of all | . There should be no more than two errors |
| dispositions. | patient dispositions. | per month in the exempentation of |
| | | |
| | | A1 |
| | log of all incoming/outgoing | placed in hite ASD book before the end |
| | | |
| | 3. Maintains patient board at all times.3. | Pa |
| | | |
| | 4. Coordinates paperwork for 4. | AI |
| | discharges to include having | cluded and turned in to the appropri- |
| | | ate office no luthic time 24 mound after |
| | out and turned in to the | discharge. |
| , | appropriate person/office. | |
| | 5. Responsible for getting all 5. | Al |
| | charts and cover sheets | should be mathered no laber 12 hours |
| | ready for interward transfer | after notification of transfer with |
| | tient. | |
| | 6. Maintains sigh in/sign out log for 6. | ο̈́Ι |
| | patients. 71 | at all times. |

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| JOB ELEMENT | TASKS | PERFORMANCE Section of the |
|--|--|---|
| | 7. Contacts MRT/Ts when made aware of MEB OR air-evacuations. | 7. MRT/Ts chould be contacted to later that four hours after notification of MEB or air evacuation. |
| 4. Mans the telephones and patient intercom. | l. Answers all telephone calls. | 1. The telephone should be answered as soo after the first ring as possible using courteous polite language with no more than one customer complaine during a |
| | Answers patient intercom and relays requests to appropriate nursing personnel. | 2. The patients intercom should be answered immediately in a polite courtecus manner and all requests chould be directed to the apprepriate personnel for action. If a team member is not available the charge nurse should be noti- |
| | Receives messages and relays to the appropriate personnel. | fied immediately. 3. All messages should be directed to the appropriate person with no nore than 6 erroneous refierals or ominations |
| | 4. Makes appointments and requests special studies upon request. | to refer during a 6 month period. 4. Appointments and requests for special studies should be made within one hour |
| | 5. Is responsible for medical record confidentiality in all communication. | arter notification. 5. Information in a patient's chart should not be discussed with anyone other than staff members that are involved in direct patient care. All requests for patients' status should be directed to the patients' nurse or physicia |

Assures completeness and proper inpatient medical records. order and format on all 5

Maintains all inpatient medical

records.

- Thins charts leaving vital patient information in medical record. ۳,
- them in the inpatient medical all diagnostic and medical tests results and places Incorporates and retrieves record.

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- 111-p i
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- ian.
- for completeness, order, and format. Charts should be checked twice daily į.
- Charts should be checked once a day for thinning. 5.
- accuracy within 24 hours of recorpt. Clinical staff will be notified Lab results should be filed with 1063 immediately of stat lub recults. .

| JOG ELEMENT | TASKS | PERFORMANCE STOTAGES |
|--|---|--|
| | 4. Retrieves previous hospitalization and out-patient medical records upon request. | Retrieves previous hospitalization 4. Charts should be retried within and out-patient medical four hours of request. |
| | 5. Closes out chart. | 5. A minimum of 50% of all charts for each days discharges should be elected out with 99% accuracy by the MKT. |
| Acts as a receptionist for the unit. | Greets all patients, visitors, and staff members. | I. Insures that patients, staff, and visitors are aquainted with ward func- |

| | and staff members. | | visitors are aquainted with word func- |
|----|--|--------|--|
| | | | tions in a helpful and courteous man- |
| | | | ner. Challenges such as "Nay I help |
| | | | you" should be made to all individuals |
| | | | that are not recogning an patients |
| | | • | or staff menbers. |
| 5 | Gives assistance and answers | 5. | 2. Gives promt answers and addictance to |
| | to inquires to patients | | inquires in a cheerfus sanser with |
| | when appropriate. | | not more than 3 complithes from pati- |
| | | | ents, staff, or visitors is a 6 |
| | | | month period. |
| ë. | 3. Maintains composure at all times. | ж • | 3. Maintains a pleasant professional |
| | | | atmosphere. Loud abrugive language, |
| | • | | temper flares, or otter iteplays |
| | | | of anger or frustration should not |
| | | | take place at the communication |
| | | | center. The communication center |
| | | | should be neat and tidy at all times. |

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THE STATE OF

| | 1. Performance is satisfactory if all patient records are turned in within 14 days of discharge with discrepancies referred to the UA within a famonth period no more than 5% of inpatient records turned in will be sent back from PAD due to mistakes in completion/turn-in. 3. The MRT/T will insure that 100% of the diagnostic test results received after discharge will be placed in the record. 4. All contact paperwork will be completed per instruction with no more than a 10% rejection rate. | |
|-------------|--|---------------------------|
| TASKS | 1. Checks records for accuracy and completeness. 2. Gloses out medical records in correct format and sequence. 3. Incorporates all diagnostic test results into the record which are received after patient's disposition. 4. Follows correct procedures to submit medical records to PAD. 5. Follows correct guidelines to submit paperwork and tapes to contract service. | |
| JOB ELEMENT | 1. Complete and turn-in medical records. | 2. Transcribes dictation. |

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| taped | • | taped | • |
|------------------------------------|----------------------|---|--------------------|
| or | | or or | |
| · Transcribes handwritten or taped | narrative summaries. | Transcribes handwritten | Operation reports. |
| -4 | • | v | |

Employee is expected to transcribe at least 6 narrative summaries (2 pages) per 8 hr. shift, or 8 normal length (1½ pages) operation reports or a combination of 4 narrative summaries and 4 operation reports per 8 hr. shift, in addition to other responsibilities.

Performance is satisfactory when there

2. Performance is satisfactory when there are no more than 3 errors per typed page.

| | MKT/T - G3-5 continued | | |
|--|---|---|---|
| - | 108 ELENEXT | TASKS | PERFORMANCE STANDARDS |
| symptomograpywa i praws warakow without the common lates of the common year the "Mandeland". | | 1. Enters all information on the disposition and location of the inpatient medical records. 2. Try to locate or retrieve lost or misplaced records. 3. Bring tracking record up to date with the delinquent roster. 4. Provides verbal or written documentation regarding any problem areas prohibiting tinely chart completion. | 1. Information in the tracking record on the exact location of the medical records will be correctly maintained without error. 2. Unit Administrators will be immediately informed of any difficulty with record processing. 3. For each 6 month period there will be no more than 3 incidences of erroneous information in oral or written reports. |
| nussanerier in versete entermente teate transmittele entermente. 1 og 2 og 2 og 2 | 4. Maintains system of accountability for inpatients. | Takes patient census on a daily basis. Checks alpha roster to insure accuracy. | Patient census must be maintained at 100% accuracy. The employee will check and correct the alpha roster to insure that all patients discharged do not appear on this roster. |
| | 5. Handles patient dispositions. | 1. Handles paperwork for medical air-evacuations. 2. Documents interward transfers with cover sheets being sent to appropriate ward within 24 hours after transfer. 3. Types physical profiles for all active duty personnel. 4. Completes and submits paperwork for medical boards. | 1. Performance is fully satisfactory when DA 3981 is completed by 10:00 a.m. on day of receiving A/E dictation and remainder of paperwork completed for patient to submit by 0730 hours the next morning. 2. All interward transfers are accurately documented within 24 hours. 3. All physical profiles are typed inmediately when received. 4. Medical boards are completed within 12-14 days after receipt of dictation from initial paperwork to final copy with signatures being turned in. |

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| MRI/T - GS-5 continued | | |
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| JOB ELEMENT | TASKS | PERFORMANCE STANDARDS |
| 6. Office information and communication. | <pre>1. Provides essential procedural and record status information to patients, their families, physicians, and unit adminis-</pre> | Performance is satisfactory if all oral communication is handled politely and courteously with full respect to the confidentiality of |
| | trators. 2. Maintains a file system of completed reports. | medical record information. 2. Filing system will be neat and accurately maintained. |
| 7. Cooperation. | 1. Gives advice and assistance to others. | Performance is satisfactory when prompt advice and assistance is |
| | Maintains effective relationships with others. Maintains composure at all times. | given to others. 2. Relationships with others will be courteous and effective. |
| | | Composure will be maintained even under adverse conditions. |

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APPENDIX K

MANAGEMENT INITIATIVES TO IMPROVE MEDICAL RECORD COMPLETION AT WRANC

MANAGEMENT INITIATIVES TO IMPROVE MEDICAL RECORD COMPLETION

Command level:

- 1. Annually set goals for record delinquency reduction.
- 2. Emphasize priority of good medical records and follow-up with additional resource commitment if needed.
- 3. Encourage positive incentive programs at the departmental level and provide MTF recognition of accomplishment.
- 4. Keep medical staff informed of the hidden cost and the consequences of poor record keeping.

Department Chief:

- 1. Make expectations known to department members.
- 2. Suspend admitting and/or operating room privileges.
- 3. Provide verbal recognition of accomplishment.
- 4. Take personal responsibility for quality of department records.
- 5. Require days be added to training program for housestaff delinquent records.
 - 6. Appoint a department member as record educator/coordinator.
 - 7. Provide space in the department for a mini-record room.
 - 8. Periodically schedule a chart completion day.
 - 9. Encourage staff to catch up on records when on call.
 - 10. Develop means to exert peer pressure to improve record keeping.
- 11. Work with MAAD and PAD to develop relevant management data concerning record documentation.
 - 12. Whatever the policy, enforce it.

Housescaff:

- 1. Set goal to complete the record while it is still on the patient unit.
 - 2. Schedule time more efficiently.
 - 3. Set a higher priority for medical records.
 - 4. Exert peer pressure to improve record keeping.
- 5. Be considerate of others who also are involved in the medical record process.

Patient Administration Directorate:

- 1. Conduct medical record orientation and follow-up education program for medical staff. Orientation should be clear and to the point, but brief. The team approach needs to be emphasized.
- 2. Set up an efficient and reliable delinquent notification system.
- 3. Have a deficiency control chart which is highly visible to all on patient unit.
 - 4. Improve turnaround time for contract transcription.
 - 5. Provide shelving of delinquent records by department or service.

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Establish a formula for delinquency which takes into account the rate of patient turnover by department.

Chief of Professional Services:

- 1. Monitor record completion and report to medical staff.
- 2. Emphasize priority of good medical records as an indicator of good patient care.

- 3. Ensure that record policies are enforced.
- 4. Provide time management training for physicians.
- 5. Develop ways to create competition among the departments.
- 6. Set formal goals with the PAD and MAAD to facilitate record completion.
 - 7. Establish a clear, but simple policy.
 - 8. Whatever the policy, enforce it.

MAAD

- 1. Maintain control of record location on the patient floor.
- 2. Work closely with physicians and nurses.
- Provide record management activity with adequate space, personnel and other resources.
 - 4. Provide a quiet area on patient unit for dictation.
 - 5. Provide unit managers with training about medical records.
 - 6. Do internal audits prior to JCAH visits.
 - 7. Assist with departmental medical record orientation.
 - 8. Improve operating equipment.
 - 9. Practice public relations.
- 10. Assign the same group of MRT/T's to work with the department. This will give more personalized service and improve cooperation. Will foster team concept.
- 11. Arrange for dictation capability using phones in conference rooms.
- 12. Be responsible for ensuring that housestaff are aware of record deficiencies on patient unit.

- 13. Watch that dictation instructions are always available to physicians.
- 14. Work with Chief of Professional Services and PAD to develop relevant management data concerning documentation.

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